Remarks and Arguments

Claims 9-19 are pending in the application. By this amendment, Applicant is amending claims 9 and 17. In addition, Applicant is reversing the withdrawal of claim 10. As a result, claims 9-19, with claim 9 being independent, remain in the application, claims 11-14, 18 and 19 being currently withdrawn from consideration. Applicant submits that no new matter has been added.

Claims That Are Objected To

Claim 17 was objected to as being dependent upon withdrawn claim 10. Applicant appreciates the Examiner's suggestion regarding the election of the species of claim 10 and requests that claim 10 be considered as part of the pending claims set.

Applicant notes that claims 15 and 16 depend from claim 17.

Rejections Under 35 U.S.C. §102

Claims 9 and 10 stand rejected under 35 U.S.C. §102(b) as being anticipated by Castro, et al., U.S. Patent 6,395,326. Applicant respectfully traverses this rejection as set forth below.

The present invention is directed to a method for applying a coating to a stent in such a manner that the coating applied to an outer surface of the stent flows to cover the periphery of the stent's struts. A coating apparatus' parameters are adjusted to cause the coating material to flow over the surfaces of the stent.

Castro is directed to depositing a coating onto a surface of a prosthesis, i.e., a stent. A dispenser motion control system 32 has the capability of maneuvering a dispenser driving component 34 in the X, Y and Z directions as well as for providing rotational motion. (Column 9, lines 54-58). The dispenser is configured to place the coating on the stent surfaces.

Castro discloses the application of a coating onto a stent by controlling the relative motion and location of the stent with respect to the coating applicator. Various modes of relative movement and control systems are disclosed to accomplish and control this movement.

In order for a reference to anticipate a claim, however, it must disclose each and every limitation of that claim. Applicant respectfully submits that Castro does not disclose each and every limitation recited in claims 9 and 10, as amended.

Claim 9, as amended, is directed to a method for coating a stent. The stent has a substantially cylindrical shape with an interior and an exterior and at least one strut having regions with exposed strut surfaces disposed around a periphery of the strut. The stent and at least one applicator are positioned relative to one another in spaced apart relation. The method

includes adjusting at least one application parameter of the at least one applicator and dispensing a coating from the at least one applicator, in accordance with the adjusted at least one application parameter, onto the at least one strut of the stent such that the coating material flows over the exposed strut surfaces and the periphery to form a substantially uniform coating on the exposed strut surfaces.

Applicant respectfully submits that Castro does not anticipate that which is recited in independent claim 9 for at least the reason that Castro does not disclose adjusting at least one application parameter of the at least one applicator and dispensing a coating from the at least one applicator, in accordance with the adjusted at least one application parameter, onto the at least one strut of the stent such that the coating material flows over the exposed strut surfaces and the periphery to form a substantially uniform coating on the exposed strut surfaces.

Castro does not disclose adjusting parameters of the applicator to coat the sides of the struts of the stent. Rather, Castro discloses that the coating will be "redistributed" after the coating has been applied. (Figs. 15A-15D, Col. 20, lines 11-30). Castro relies on characteristics of the coating in order to spread to the sides. Additionally, Castro discloses that once the coating has been deposited, it can be further redistributed by various techniques including "air pressure, centrifugal force or a second solvent." (Col. 20, lines 44-45). Castro discloses that the composition can be directed from the outer surface to the inner surface by passing air across the composition either in bursts or a steady stream. (Col. 20, lines 45-50).

Castro redistributes the coating material after it has been placed on the stent in contrast to that which is recited in Applicant's claim 9. For at least this reason, Applicant submits that claim 9 is not anticipated by Castro.

Claim 10 depends from claim 9 and Applicant submits that claim 10 is not anticipated by Castro for at least the same reason as submitted above with respect to claim 9.

Claims 9 and 10 stand rejected under 35 U.S.C. §102(b) as being anticipated by Zhong, U.S. Patent 6,676,987. Applicant respectfully sets forth below a traversal of this rejection.

Zhong is directed to a system and method for coating a medical appliance having accessible pattern surfaces. (Abstract). Zhong uses a bubblejet printer to apply the coating to the medical appliance. (Col. 5, lines 38-41). Zhong, however, is directed to placing the coating on the surface and is silent as to placing the coating on the periphery of a stent strut.

Applicant respectfully submits that Zhong does not anticipate either of claims 9 and 10 for at least the reason that Zhong does not disclose adjusting parameters of the applicator to coat the sides of the struts of the stent.

Zhong discloses that the print head is preferably programmed to coat in a "precise manner" and it is preferred that the droplets be "small in relation to the target area of the medical appliance to allow for a high degree of precision in coating the target." (Col. 5, lines 38-45). Applicant submits that Zhong discloses only placing the coating droplets in specified locations without any of the "redistribution" of Castro and without the setting of parameters as recited in claim 9.

For at least the foregoing reason, Applicant respectfully submits that claims 9 and 10 are not anticipated by Zhong.

Rejections Under 35 U.S.C. §103

Claims 15-17 stand rejected under §103 as being unpatentable over Castro. For at least the same reasons as submitted above, as claims 15-17 depend from independent claim 9, Applicant respectfully submits that claim 9 is not rendered obvious by the Castro reference.

As above, Castro relies on either: the characteristics of the coating material to "redistribute" itself after being applied; or additional steps performed, e.g., blowing air over the coating to further redistribute it. As above, claim 9 recites that parameters of the coating applicator are adjusted to cause the coating material to flow. In Castro, the redistribution occurs after the application of the coating, and not because of the way the coating was applied, or redistribution occurs because of subsequent steps applied to the coating material after it has been placed on the medical device.

Castro does not teach or suggest that the parameters of the applicator can be adjusted to cause the coating to flow, as is recited in claim 9. For at least this reason, Applicant respectfully submits that claim 9 and its dependent claims 10 and 15-17 are not rendered obvious by this reference.

Claim 17, depends on claim 9, and recites that the positioning step comprises targeting a center of a strut outer surface and the adjusting step adjusts drop size and drop velocity parameters.

Applicant respectfully submits that Castro does not teach or suggest that which is recited in claim 17. As above, Castro relies on post-coating application processes for redistributing the coating on to the periphery of the strut. In contrast, Applicant's claim 17 recites that parameters of the coating applicator are adjusted to achieve strut encapsulation.

One of ordinary skill in the art would not be motivated by the teaching of Castro to modify its operation to arrive at that which is recited by Applicant in claim 17. As above, Castro teaches post-application operations to cause redistribution of the coating and not adjustment of

the coating applicator as Applicant recites. There is no teaching or suggestion to target the center of a strut outer surface and modify drop size and drop velocity parameters.

The Examiner acknowledges that Castro does not teach optimizing the drop velocity but asserts that an ordinary artisan would select an "appropriate droplet velocity or droplet pressure to optimize coating parameters, such as width." (Office Action mailed 9/8/2004, p.4). While an artisan might make these selections to optimize width on the stent, there is no teaching in Castro to choose these parameters to affect the redistribution of the coating.

For at least the foregoing reasons, Applicant respectfully submits that claim 17 is patentable over the cited reference.

Applicant believes all claims are in allowable condition. A notice of allowance for this application is earnestly solicited. If the Examiner has any questions regarding this amendment, the Examiner is invited to call Applicant's attorney at the number listed below. The Examiner is hereby authorized to charge any fees or credit any balances under 37 CFR §§1.16 and 1.17 to Deposit Account No. 02-3038

Respectfully submitted,

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